



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality – Permit Amendment

In accordance with The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to or in effect under that Act, Permit No. 2869-121-0946-S-01-0 issued on August 4, 2017 to:

Facility Name: Nexus Circular LLC
Facility Address: 500 Waterfront Drive
Atlanta, Georgia 30336 Fulton County
Mailing Address: 500 Waterfront Drive
Atlanta, Georgia 30336
Facility AIRS Number: 04-13-121-00946

for the following:

Construction and operation of an advanced plastics recycling facility.

is hereby amended as follows: Addition of a new production line and change the name of Nexus Headquarters to Nexus Circular LLC.

Reason for Amendment: Application Number 28615 signed September 28, 2022.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 6 page(s).

This Permit Amendment is hereby made a part of Permit No. 2869-121-0946-S-01-0 and compliance herewith is hereby ordered. Except as amended hereby, the above referenced Permit remains in full force and effect.



Richard E. Dunn, Director
Environmental Protection Division

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2. Allowable Emissions

NEW CONDITION

- 2.2 The Permittee shall not discharge nor cause the discharge into the atmosphere from the entire facility volatile organic compound (VOC) emissions in an amount equal to or exceeding 25 tons during any consecutive 12-month period.
[Avoidance of 391-3-1-.02(2)(tt)]

NEW CONDITION

- 2.3 The Permittee shall not discharge nor cause the discharge into the atmosphere from the entire facility NOx emissions in an amount equal to or exceeding 25 tons during any consecutive 12-month period.
[Avoidance of 391-3-1-.02(2)(yy)]

NEW CONDITION

- 2.4 The Permittee shall not cause, let, suffer, permit or allow emissions from any manufacturing process that contain visible emissions, the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)1]

NEW CONDITION

- 2.5 The Permittee shall not burn fuel containing more than 2.5 percent sulfur, by weight, in any fuel burning sources at this facility.
[391-3-1-.02(2)(g)2]

NEW CONDITION

- 2.6 The Permittee shall comply with all applicable provisions of the New Source Performance Standards (NSPS) as found in 40 CFR 60 Subpart A - "General Provisions" and 40 CFR 60 Subpart JJJJ - "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines," for operation of engines IC01 and IC02.
[40 CFR 60.4230]

NEW CONDITION

- 2.7 The Permittee shall not cause, let, suffer, permit or allow the rate of emissions from engines IC01 and IC02, subject to 40 CFR 60 Subpart JJJJ, any gases which contain emissions in total quantities exceeding the allowable rate as indicated below:
[40 CFR 60.4233(e) and Table 1 of 40 CFR 60 Subpart JJJJ]
- a. NOx emissions in excess of 1.0 g/hp-hr or 82 ppmvd at 15% oxygen
 - b. CO emissions in excess of 2.0 g/hp-hr or 270 ppmvd at 15% oxygen
 - c. VOC emissions in excess of 0.7 g/hp-hr or 60 ppmvd at 15% oxygen

The owner and operator of stationary SI ICE may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

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NEW CONDITION

- 2.8 The Permittee shall not cause, let, permit, or allow the emission of nitrogen oxides (NO_x), from the IC engines IC01 and IC02, during the period of May 1 through September 30, to exceed 80ppm @ 15% oxygen on a dry basis.
[391-3-1-.02(2)(mmm)]

NEW CONDITION

- 2.9 The Permittee shall comply with requirements of 40 CFR 63 Subpart ZZZZ –National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), for IC engines IC01 and IC02, by complying with 40 CFR 60 Subpart JJJJ.
[40 CFR 63.6590(c)]

3. Fugitive Emissions

MODIFIED CONDITION

- 3.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants and maintain visible emissions from fugitive dust below 20%.
[391-3-1-.02(2)(n)2]

4. Process & Control Equipment

MODIFIED CONDITION

- 4.2 The Permittee shall operate the Extruder Scrubbers (Source Code SC01, Source Code SC02 and Source Code SC03) during all times of extruder operation.

5. Monitoring

MODIFIED CONDITION

- 5.2 The Permittee shall install, calibrate, maintain, and operate indicators on Extruder Scrubber 1 (Source Code SC01), Extruder Scrubber 2 (Source Code SC02) and Extruder Scrubber 3 (Source Code SC03), for the following:
- a. Scrubbant flow rate in gallons per minute (gpm);
 - b. Differential pressure of the gas stream in inches of water (inches H₂O); and
 - c. Scrubbant pH.

MODIFIED CONDITION

- 5.3 The Permittee shall determine and record the scrubbant flow rate (gpm), differential pressure of the gas stream (inches H₂O), and scrubbant pH for Extruder Scrubber 1 (Source Code SC01), Extruder Scrubber 2 (Source Code SC02) and Extruder Scrubber 3 (Source Code SC03) at least once per 8-hour period of facility operation.

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MODIFIED CONDITION

- 5.4 The Permittee shall maintain the presence of the pilot flame of flares 1 and 2 (Source Codes FB01 and FB02). Presence of the pilot flames shall be monitored utilizing a flame rod or equivalent. Data shall be recorded once per 8-hour period of facility operation. In the event of extinguishing of the pilot flames, immediate actions shall be taken to restore the flames.

NEW CONDITION

- 5.5 The Permittee shall monitor NO_x emissions from IC engines IC01 and IC02 between March 1 and May 1 of each calendar year and perform the measurement using the manufacturer recommended settings for reduced NO_x emissions. Three test measurements of 30 minutes in duration each are required.
[391-3-1-.02(2)(mmm)]

NEW CONDITION

- 5.6 Following the annual NO_x measurement, from the period May 1 through September 30 of each year, the Permittee shall operate each IC engine IC01 and IC02 using the settings determined during the annual measurement. The Permittee shall certify that no adjustments have been made to the engines by the Permittee and/or any third party since the last successful measurement. This certification shall be made in writing no later than October 15 of each year and shall be maintained with the records required in section 7 of this permit.
[391-3-1-.02(2)(mmm)]

6. Performance Testing

NEW CONDITION

- 6.2 The Permittee should conduct initial performance testing for NO_x, CO and VOC in engines IC01 and IC02. Subsequent performance testing is not required unless the stationary engine undergoes rebuild, major repair or maintenance.
[40 CFR 60.4243(f)].

NEW CONDITION

- 6.3 Conduct the performance test specified in Condition 6.2 within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup.
[40 CFR 60.8(a)].

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7. Notification, Reporting and Record Keeping Requirements

MODIFIED CONDITION

- 7.2 Within 45 days of startup of the modification, the Permittee shall submit, to the Division, in writing, the minimum scrubbant flow rate; differential pressure of the gas stream in inches of water; and pH range that represent normal operation of the Extruder Scrubber 1 (Source Code SC01), Extruder Scrubber 2 (Source Code SC02) and Extruder Scrubber 3 (Source Code SC03). These are the value(s) that shall be used to determine reportable deviations in accordance with Condition No. 7.3. Should the scrubbant flow rate, differential pressure, or scrubbant pH value fall outside of the normal operational range(s), the Permittee shall take immediate corrective actions to return the scrubbers to normal operation. The Permittee shall record the time of the occurrence, the nature, the cause, and the corrective action of such deviations.

MODIFIED CONDITION

- 7.3 The Permittee shall submit a written report of reportable incidences for each semiannual period. The report shall cover each semiannual period ending June 30 and December 31 of each year, shall be postmarked by August 29 and February 28 respectively, and shall contain the nature and cause of the deviation, the time and date of occurrence, and any initial and final corrective action taken. The report shall also contain a summary of any days for which any of the required operation and maintenance surveillance checks were not made and the reason for such failure to perform the surveillance. A reportable incidence is defined as the following:
- a. Extruder Scrubber 1 (SC01), Extruder Scrubber 2 (SC02) and Extruder Scrubber 3 (SC03): Any scrubbant flow rate, differential pressure of the gas stream, or scrubbant pH required by Section 5 of this permit that is outside of the ranges established by Condition 7.2 of this permit.
 - b. Flare 1 (FB01) and Flare 2 (FB02) : Any period(s) of loss of the pilot flame.

NEW CONDITIONS

Facility-Wide HAP, VOC and NOx Emissions Recordkeeping and Reporting

- 7.5 Within 60 days of the expansion, the Permittee shall submit to the Division a protocol for calculating VOC, NOx and HAPs from the entire facility. This protocol shall include methods for calculating emissions from IC engines, flares, scrubbers, tank breathing and product loadout losses, reactors, augers and any other source of VOC, NOx and HAP emissions. This can include, but is not limited to, emission factors (both site-specific and industry accepted), material and heat balances, test results, design capacities, average heating value of vapor and liquid process streams, length and frequency of flaring, and engineering estimates. This protocol will be utilized to calculate monthly and twelve-month rolling totals of these pollutants in order to demonstrate compliance with the limits contained in Conditions 2.1, 2.2 and 2.3. [Avoidance of Part 70 Applicability, Avoidance of 40 CFR 52.21, and Area Source Classification Under 40 CFR 63]

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- 7.6 The Permittee shall use the records and protocol required by Condition 7.5 to calculate total monthly emissions of each individual HAP and total combined HAP from the entire facility. All demonstration calculations, including any Division-approved emission factors used in the calculations, shall be kept as part of the records required by this Condition. The Permittee shall notify the Division in writing if emissions of any individual HAP exceed 0.83 tons from the entire facility, or if emissions of all listed HAPs combined exceed 2.08 tons from the entire facility, during any calendar month. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the emission limit in Condition 2.1.
[Avoidance of Part 70 Applicability]
- 7.7 The Permittee shall use the calculations required by Condition 7.6 to determine the twelve-month rolling total emission of each individual HAP for each month and the twelve-month rolling total combined HAP emissions for each month from the entire facility for each calendar month. The Permittee shall notify the Division in writing if the combined HAP emissions from the entire facility equal or exceed 25 tons and/or any individual HAP equals or exceeds 10 tons during any consecutive twelve-month period. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain compliance with the emission limit in Condition 2.1.
[Avoidance of Part 70 Applicability]
- 7.8 The Permittee shall use the records and protocol required by Condition 7.5 to calculate total monthly emissions of VOC from the entire facility. All demonstration calculations, including any Division-approved emission factors used in the calculations, shall be kept as part of the records required by this Condition. The Permittee shall notify the Division in writing if VOC emissions exceed 2.08 tons during any calendar month. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the emission limit in Condition 2.2. The Permittee shall maintain these records on site at all times in a format suitable and available for inspection by or submittal to the Division on request.
[Avoidance of 391-3-1-.02(2)(tt)]
- 7.9 The Permittee shall use the calculations required by Condition 7.8 to determine the twelve-month rolling total emissions of VOCs for each month from the entire facility for each calendar month. The Permittee shall notify the Division in writing if the VOC emissions from the entire facility equal or exceeds 25 tons during any consecutive twelve-month period. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain compliance with the emission limit in Condition 2.2. The Permittee shall maintain these records on site at all times in a format suitable and available for inspection by or submittal to the Division on request.
[Avoidance of 391-3-1-.02(2)(tt)]

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- 7.10 The Permittee shall use the records and protocol required by Condition 7.5 to calculate total monthly emissions of NO_x from the entire facility. All demonstration calculations, including any Division-approved emission factors used in the calculations, shall be kept as part of the records required by this Condition. The Permittee shall notify the Division in writing if NO_x emissions exceed 2.08 tons during any calendar month. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the emission limit in Condition 2.3. The Permittee shall maintain these records on site at all times in a format suitable and available for inspection by or submittal to the Division on request.
[Avoidance of 391-3-1-.02(2)(yy)]
- 7.11 The Permittee shall use the calculations required by Condition 7.10 to determine the twelve-month rolling total emissions of NO_x for each month from the entire facility for each calendar month. The Permittee shall notify the Division in writing if the NO_x emissions from the entire facility equal or exceeds 25 tons during any consecutive twelve-month period. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain compliance with the emission limit in Condition 2.3. The Permittee shall maintain these records on site at all times in a format suitable and available for inspection by or submittal to the Division on request.
[Avoidance of 391-3-1-.02(2)(yy)]
- 7.12 The Permittee shall submit written notification of startup expansion to the Division within 15 days after such date. The notification shall be submitted to:
Mr. Sean Taylor
Stationary Source Compliance Program
4244 International Parkway, Suite 120
Atlanta GA 30354